Attorney's Docket No. P2647-000718

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of	
Freddie Geier et al.	Group Art Unit: 2616
Application No.: 09/755,627	Examiner: VINCENT F BOCCIO
Filed: January 4, 2001	Appeal No.:
For: EMBEDDED ACCESS INFORMATION FOR DIGITAL VERSATILE DISC (DVD) INDEPENDENT	

APPEAL BRIEF

Mail Stop APPEAL BRIEF - PATENTS
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

This appeal is from the decision of the Primary Examiner dated August 25, 2005, finally rejecting claims 2-10, 12-19, 21-27 and 29-37, which are reproduced as the Claims Appendix of this brief.

☐ A check covering the ☐ $250.00 (2402) ☐ $500.00 (1402) Government fee is filed herewith.

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The Commissioner is hereby authorized to charge any appropriate fees under 37 C.F.R. §§1.16, 1.17, and 1.21 that may be required by this paper, and to credit any overpayment, to Deposit Account No. 02-4800.

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Table of Contents

I. Real Party in Interest

The application is assigned to Apple Computer, Inc.

II. Related Appeals and Interferences

There are no other appeals, interferences or judicial proceedings which may be related to, directly affect or be directly affected by, or have a bearing on the Board's decision in this appeal.

III. Status of Claims

The present application contains claims 1-37. Claims 1, 11, 20 and 28 have been canceled. Claims 2-10, 12-19, 21-27 and 29-37 are pending and stand finally rejected. This appeal is directed to the rejections of claims 2-10, 12-19, 21-27 and 29-37.

IV. Status of Amendments

There were no amendments filed subsequent to the final Office Action.

V. Summary of Claimed Subject Matter

The claimed subject matter is directed to the playback of information stored on a digital versatile disc (DVD), for example, on a computer. Once a DVD is produced, the content of the DVD remains static, and cannot be updated. In many instances, however, it is desirable to provide dynamically updated information in conjunction with the data being presented from a DVD. To accomplish this objective, it is known to embed resource indications, such as Uniform Resource Locators (URLs) or file indications, on the DVD. An application program can be provided with the embedded resource indication, to obtain updated information. For example, in the case of URL, a browser program can be used to retrieve a web page containing the updated information. (Page 2, lines 17-22).

In the past, support for embedded information contained in a DVD was provided by modifying DVD player software. A limitation associated with this approach is the fact that a user cannot take advantage of the embedded information

unless he or she obtains the modified DVD player software that supports this function. A DVD player that was designed only to support standard DVD video specifications, i.e. to play back the static content on the DVD, does not provide the user with access to the additional information represented by the embedded resource indications. The claimed subject matter removes this limitation, by retrieving the resource indications from the DVD, detecting when information associated with an embedded resource indication should be obtained, and launching an application program to obtain the resource. (Page 3, lines 15-26).

An exemplary computer system that implements the claimed subject matter is depicted in Figure 1. The system includes an operating system 30 and various application programs, including DVD player software 22, a web browser 24 and possibly other application programs 26. The system also includes DVD hardware 40, that operates to read the data on a DVD. In operation, when a DVD is being played, the DVD player software issues sequential requests for data stored at respective addresses on the DVD. These requests are received by the operating system, which issues control signals to the DVD hardware, to obtain the requested data. The data provided by the DVD hardware 40 to the operating system is then forwarded on to the DVD player software 22, e.g. to play back a movie. (Page 4, lines 14-22).

The operating system has the ability to examine the contents of a DVD read by the DVD hardware 40, to identify resource indications. In one embodiment of the claimed subject matter, this functionality resides in an operating system extension 32, for example, a dynamically loaded library. This extension might be provided to the operating system by the DVD itself. For instance, as illustrated in Figure 1, the DVD 42 can contain normal DVD content, e.g. a movie and the menus associated therewith, a file or resource indications and associated sector replays, and the system extension software.

When a DVD is loaded into the DVD hardware, the operating system first examines the contents of the DVD to determine whether resource indications are stored on the DVD. These resource indications might be stored, for example, within a text region of the DVD, such as a Video Title Set Navigation Information File, which

contains the menu information that is brought up when a DVD disc is loaded into a player. In one embodiment of the invention, the resource indications might be stored in an encoded format. Figure 4 illustrates an example of the information that is available after it has been decoded. In the specific example therein, two URLs are respectively associated with two menu items of the DVD. Upon identifying the existence of these resource indications on the DVD, the operating system creates a table that lists the resource indications, and a sector address range that is associated with each resource indication. (Figure 2, step 54; page 6, lines 24-26).

Thereafter, during the playback of the DVD, the operating system examines the address in each request from the DVD player software to the operating system. A buffer is used by the operating system to store the addresses of the data requested from the DVD hardware 40. (Page 4, lines 25-28). An example of the buffer of requested addresses is illustrated in Figure 4. The operating system determines whether any of the requested addresses matches an address associated with a resource indication, stored in the table derived from the DVD data. If there is a match between the address for requested data and a sector address associated with a resource indication, an appropriate application program is launched and the resource indication matching the requested address is provided to the application program, to obtain the resource. (Page 7, lines 5-12; Figure 2, steps 60-64). Referring to the example of Figure 4, it can be seen that requested addresses 5050 and 5100 fall within the sector range 5000-6500 associated with the URL www.company.com/.../info.html. Thus, when the operating system recognizes that these requested addresses match a sector range stored in the table, the web browser is launched and the URL of the matching sector range is provided to the browser.

Claim 29 recites two elements in mean-plus-function format. The first of these elements is a "means for reading a digital versatile disc". This means is represented by the DVD hardware 40, as specified in dependent claim 37. The second element is an "operating system means..." The corresponding structure in the specification is the operating system extension 32, as specified in dependent claim 30.

VI. Grounds of Rejection to be Reviewed on Appeal

The final Office Action presents the following two grounds of rejection for review on this appeal:

(1) Claims 2-9, 12-19, 21-27 and 29-37 stand rejected under 35 U.S.C. §102, as being anticipated by the Kanazawa et al patent (US 6,580,870);

(2) Claim 10 stands rejected under 35 U.S.C. §103 as being unpatentable over the Kanazawa patent.

VII. Argument

A. 35 U.S.C. §102

Claims 2-9, 12-19, 21-27 and 29-37 stand finally rejected under 35 U.S.C. §102, as being anticipated by the Kanazawa et al patent. The final Office Action states: "The examiner incorporates by reference the last action against the claims", namely the Office Action dated January 13, 2005.

The Kanazawa patent discloses a system for reproducing information from a DVD, and discloses the ability to access information from a resource that is external to the DVD, i.e. an Internet web page. However, the particular manner in which the system of the Kanazawa patent accesses this external information is different from the approach disclosed in the present application. In particular, that system relies upon the DVD playback program to recognize a command to retrieve an Internet web page, and to launch a browser application to obtain the web page.

As shown in Figure 2, a DVD 40 contains title information 40a, e.g. movies, and an information management table 40b. As shown in Figure 3, the information management table includes pieces of identification information ST-1 to ST-n that identify individual streams in the title information 40a, and access information 30. The pieces of identification information ST-1 to ST-n include time information that is used to control the display of a web mark 90, as illustrated in the examples of Figures 10A-10C and 11A-11B.

If the user presses a web button during the playback of the DVD, related HTML contents are displayed, as shown in the example of Figures 19A-19B. At column 16, lines 18-33, the Kanazawa patent discloses:

> When the button is pressed, the DVD playback control program 116 acquires a navigation pack (NV_PCK) in the video object unit presently being reproduced (step 101). Then the DVD playback control program 116 judges whether an Internet address (URL) is present in the NV_PCK (step S102)...
>
> If an Internet address (URL) is included, the DVD playback control program 116 will store the position and state of the DVD video presently being reproduced and go into the pause (or halt) state (steps S104, S105). At the same time, the DVD playback control program 116 will use the Internet address as an argument to start the WWW browser 117 or hand over the information as an Internet address to be displayed on the WWW browser 117 in operation (step S106).

1. Claims 2, 12, 21 and 29

To anticipate a claim, the reference must teach every element of the claim. MPEP §2131. Because the system of the Kanazawa patent operates in the manner of the prior art described in the specification, it does not teach every element of the rejected claims.

For example, one aspect of the claimed subject matter resides in the fact that certain functions are performed by an operating system, to thereby avoid the need for DVD playback software that includes the capability of recognizing the need to access external information, and launch an application program to do so. Independent claim 2 recites the steps of "in an operating system, checking a digital versatile disc (DVD) for resource indications and address region...", "in the operating system examining the addresses of requested DVD data for a match with the addresses associated with the resource indication" and "in the operating system starting an application program and providing the resource indication having the matching associated address to the application program to obtain a resource." Each of these steps explicitly recites that these functions are performed by the operating system. The Kanazawa patent teaches exactly the opposite. Referring to the above-quoted passage from column 16, it states "*the DVD playback control program 116* judges whether an Internet address (URL) is present...", and "*the DVD playback*

control program 116 will use the Internet address as an argument to start the WWW browser 117 or hand over the information as an Internet address to be displayed on the WWW browser 117..." (emphasis added). Thus, the Kanazawa patent explicitly teaches that the DVD playback program, rather than the operating system, detects the presence of a URL, and starts a web browser to obtain the information at the URL.

For at least this reason, therefore, claim 2 is not anticipated. For similar reasons, independent claims 12 and 29 are not anticipated. Claim 12 recites, among other elements, "an operating system adapted to check the DVD disc for resource indication... and ... to start an application program and to provide the resource indication ... to the application program to obtain a resource." Claim 29 recites an "operating system means" that performs these same functions. As explained above in connection with claim 2, this subject matter is not disclosed in the Kanazawa patent.

Another distinguishing aspect of the claimed subject matter resides in the particular manner in which a determination is made to access external resource information. For example, claim 2 recites the step of checking a DVD for resource indications, e.g. URLs, and "address regions associated with said resource indications." Claim 2 recites the further step of "examining the addresses of requested DVD data for a match with the addresses associated with the resource indications." In connection with these claimed steps, the Office Action dated January 13, 2005, cites the Kanazawa patent at Figure 19A, with specific reference to the Web Link Button, and the above-quoted passage from column 16 describing the actions that occur when the web button is pressed. These portions of the patent do not constitute a teaching of examining the *addresses* of requested DVD data to detect a match with addresses associated with resource indications. Rather, as explained above, when a particular portion of the DVD content is being reproduced that has corresponding HTML information, the web button is displayed on the screen. To retrieve the associated web page, the system responds to a command from the user, namely the pressing of the web button. Upon receiving that

command, the system determines whether a URL is present in the data provided by the DVD, and if so it activates the web browser to obtain the web page.

This procedure does not involve examining address of *requested* DVD data to determine whether it matches the addresses associated with resource indications. Instead, it is a passive operation in which the system awaits a *command* from the user, in the form of a button press. When the command is received, the system does not operate to detect a *match* with addresses associated with resource indications. At most, it checks to see whether a URL is present in the data being provided by the DVD.

In responding to Appellants' previous arguments to this effect, the Advisory Action dated December 21, 2005 refers to Kanazawa's disclosure of a navigation pack containing a URL, which is an address on the Internet. The fact that a URL constitutes an address has no bearing on the claimed subject matter. At best, the Kanazawa patent discloses that the DVD playback control program judges *whether* an Internet address is *present* in the navigation pack. If such an address is present, the playback control program does not perform any matching of that address with the address of requested DVD data. That is because they are two different types of addresses. One is the address of a resource on the Internet, the other is the address of data on the DVD. There is no matching of these addresses, particularly in a manner that would anticipate claim 2.

For the same reasons, independent claims 12, 21 and 29 are not anticipated. Claim 12 recites, among other elements, an operating system "adapted to... examine addresses requested from the DVD player for a match with addresses associated with the resource indications..." Claim 21 recites the step "while playing a DVD in a DVD player, examining requested DVD addresses for a match with addresses associated with the resource indications". Claim 29 recites an operating system means that performs, among other functions, that of examining the DVD addresses requested from the reading means to find addresses associated with the resource indications. The Kanazawa patent's teaching of detecting whether an Internet address is present in a navigation pack does not anticipate any of these claimed features.

2. Claims 3, 13, 22 and 30

Claim 3 recites that the operating system includes an operating system extension. In rejecting this claim, the Office Action dated January 13, 2005 states that the Kanazawa patent "meets the limitation of wherein the operating system includes an operating system extension (met by driver program, col. 11, 'driver groups')". However, the Kanazawa patent's disclosure of "driver groups" at column 11 does not relate to operating system extensions. Rather, at lines 16-18, the patent states "the *DVD playback control program* 116 is actually composed of driver groups for controlling the aforementioned various pieces of hardware..." Thus, the driver groups identified in the rejection pertain to the DVD control program, not the operating system.

Hence, the Kanazawa patent does not anticipate the subject matter of claim 3. For similar reasons, claims 13, 22 and 30 are also not anticipated.

3. Claims 7, 17, 25 and 34

Claim 7 recites that the address region "is stored on the DVD as a DVD menu indication." In rejecting this claim, the Office Action dated January 13, 2005 refers to the Kanazawa patent at Figure 19A and its illustration of the web link button. However, this figure does not illustrate *how* an address region is stored on the DVD.

As discussed previously, the Kanazawa patent discloses that the URLs are stored as access information 30 in an information management table 40b. This information management table is not disclosed as being a DVD menu. Rather, it is a distinct portion of the DVD that is separate from the menu contained in the title information 40a.

The Kanazawa patent does not anticipate claim 7. For the same reasons, claims 17, 25 and 34 are not anticipated.

4. Claims 9, 19, 27 and 36

Claim 9 recites that the operating system "produces a buffer of *addresses requested from a DVD player*", and that the operating system examines the buffer for addresses corresponding to a resource indication. In rejecting this claim, the Office Action dated January 13, 2005 refers to "buffered DVD data to memory 12 in Fig. 17". The fact that DVD *data*, e.g. video content, may be buffered does not anticipate the subject matter of claim 9. The claim recites that the buffer produced by the operating system contains "addresses requested from DVD player hardware". The rejection does not identify where the Kanazawa patent discloses the buffering of *addresses* that have been requested by the DVD player.

For at least these reasons, the subject matter of claims 9, 19, 27 and 36 is not anticipated by the Kanazawa patent.

B. 35 U.S.C. §103

Claim 10 is rejected under 35 U.S.C. §103 as being unpatentable over the Kanazawa patent. The final Office Action dated August 25, 2005 "incorporates by reference the last action against the claims," namely the Office Action dated January 13, 2005.

Claim 10 recites that the addresses are sectors on the DVD. The Office Action dated January 13, 2005 acknowledges that the Kanazawa patent does not disclose that the DVD has a sectored format. Using Official Notice, the rejection states that it would be obvious to utilize a sectorized data structure on a disc record medium.

The rejection of claim 10 is based upon the rejection of claim 2 under 35 U.S.C. §102. Since claim 2 is not anticipated by the Kanazawa patent, for the reasons presented in prior sections of this Brief, the rejection of claim 10 is likewise not supported by the Kanazawa patent.

C. Conclusion

The final Office Action does not meet the burden of showing that all of the elements recited in the claims rejected under 35 U.S.C. §102 are disclosed in the

Kanazawa patent. As such, a prima facie case of anticipation has not been demonstrated. For at least the same reason, the Kanazawa patent does not suggest the subject matter of claim 10, even if the Examiner's Official Notice is accepted.

The rejections are not properly founded in the statute, and should be reversed.

VIII. Claims Appendix

See attached Claims Appendix for a copy of the claims involved in the appeal.

IX. Evidence Appendix

(none)

X. Related Proceedings Appendix

(none)

Respectfully submitted,

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VIII. CLAIMS APPENDIX

The Appealed Claims

Claim 2: A method comprising the following steps:

in an operating system, checking a digital versatile disc (DVD) for resource indications and address regions associated with said resource indications;

while playing the DVD, in the operating system examining the addresses of requested DVD data for a match with the addresses associated with the resource indications; and

if a match is found, in the operating system starting an application program and providing the resource indication having the matching associated address to the application program to obtain a resource, wherein the starting and providing steps are not done under the control of DVD player software.

Claim 3: The method of claim 2, wherein the operating system includes an operating system extension.

Claim 4: The method of claim 3, wherein the operating system extension is provided on a digital versatile disc for loading onto the computer.

Claim 5: The method of claim 2, wherein the steps are implemented on a computer.

Claim 6: The method of claim 2, wherein the resource indications are Uniform Resource Locators (URLs).

Claim 7: The method of claim 2, wherein the the address region is stored on the DVD as a DVD menu indication.

Claim 8: The method of claim 2, wherein the resource indication is a file indication.

Claim 9: The method of claim 2, wherein the operating system produces a buffer of addresses requested from DVD player hardware and the operating system examines the buffer for addresses corresponding to a resource indication.

Claim 10: The method of claim 2, wherein the addresses are sectors on the DVD.

Claim 12: A system comprising:

a digital versatile disc (DVD) player adapted to read a DVD disc; and

an operating system adapted to check the DVD disc for resource indications and address regions associated with said resource indications, and to examine addresses requested from the DVD player for a match with addresses associated with the resource indications and, if a match is found, to start an application program and to provide the the resource indication associated with the matching address to the application program to obtain a resource, wherein the starting and resource-indication providing are not done under the control of DVD player software.

Claim 13: The system of claim 12, wherein the operating system includes an operating system extension.

Claim 14 The system of claim 13, wherein the operating system extension is loaded from a DVD.

Claim 15: The system of claim 12, wherein the system is implemented on a computer.

Claim 16: The system of claim 12, wherein the resource indications are Uniform Resource Locators.

Claim 17: The system of claim 12, wherein the address region is stored on the DVD as a DVD menu indication.

Claim 18: The system of claim 12, wherein the resource indication is a file indication.

Claim 19: The system of claim 12, wherein the operating system buffers addresses requested by the DVD player.

Claim 21: A computer readable medium containing a program which executes the following procedure:

checking a digital versatile disc (DVD) for resource indications and address regions associated with said resource indications;

while playing a DVD in a DVD player, examining requested DVD addresses for a match with addresses associated with the resource indications; and

if a match is found, starting an application program and providing the resource indication associated with the matching address to the application program to obtain a resource, wherein the starting and resource indication providing steps are not done under the control of DVD player software.

Claim 22: The computer-readable medium of claim 21, wherein the starting and resource indication providing steps are performed by an operating system extension.

Claim 23: The computer-readable medium of claim 22, wherein the operating system extension is loaded from the DVD.

Claim 24: The computer-readable medium of claim 21, wherein the resource indication is a URL.

Claim 25 (currently amended): The computer-readable medium of claim 21, wherein the address regions are stored on the DVD as DVD menu indications.

Claim 26: The computer-readable medium of claim 21, wherein the resource indication comprises a file indication.

Claim 27: The computer-readable medium of claim 21, wherein the program executes the further step of creating a buffer of addresses requested by the DVD player.

Claim 29: An apparatus comprising:

means for reading a digital versatile disc (DVD); and

operating system means for checking the DVD disc for resource indications and address regions associated with said resource indications, and for examining the DVD addresses requested from the reading means to find addresses associated with the resource indications and, if the association is found, starting an application program and providing one of the resource indications to the application program to obtain a resource, wherein the starting and resource-indication providing are not done under the control of DVD player software.

Claim 30: The apparatus of claim 29, wherein the operating system means includes an operating system extension.

Claim 31: The apparatus of claim 30, wherein the operating system extension is loaded from a DVD.

Claim 32: The apparatus of claim 29, wherein the apparatus comprises a computer.

Claim 33: The apparatus of claim 29, wherein the resource indications comprise URLs.

Claim 34: The apparatus of claim 29, wherein the address regions are stored on the DVD as DVD menu indications.

Claim 35: The apparatus of claim 29, wherein the resource indication comprises a file indication.

Claim 36: The apparatus of claim 29, wherein the operating system stores a buffer of addresses produced by the the DVD player software.

Claim 37: The apparatus of claim 29, wherein the reading means comprises DVD player hardware.